II- PERIODIC TEST: 2022-23

CLASS - X (CBSE) SCIENCE

Time: 2 hrs.

M.M.: 80

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General Instructions:

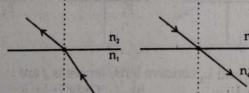
- i) This questions paper comprises of four sections -A, B, C and D.
- ii) All questions are compulsory.
- iii) Section-A consists of 1 mark questions contain MCQ and case study type questions.
- iv) Section-B consists of 1 mark questions contain fill in the blank type questions.
- v) Section-C consists of 2 marks questions contain. Start type questions.
- Section-D consists of 5 marks questions contain long type questions. vi)

SECTION - A [40 Marks] .

- 1. In which of the following vertebrate group/groups heart does not pump oxygenated blood to different parts of body? [1]
 - a) Pisces and amphibians
 - Amphibians and Reptiles
 - c) Amphibians only
 - Pisces only
- 2. Spinal cord originates from:
 - cerebrum a)
 - b) cerebellum medulla d) pons
- 3. The inner living of stomach is protected by one of the following from hydrochloric
 - a) Pepsin
- Mucus
- Bile c) Salivary amylase d)
- 4. Which of the following is not a mineral acid?
 - Hydrochloric acid
 - Citric acid b)
 - Nitric acid c)
 - Sulphuric acid d)
- Which of the following property is generally not shown by metals? 5. [1] Electrical conduction

 - b) Sonorous in nature
 - c) Dullness
 - d) Ductility
- Which of the following is/are amphoteric:
 - Al,O

- b) ZnO
- c) SnO₂
- All of these d)
- Which of the following can make a parallel beam of light when light from a point object source is incident on it:
 - Concave mirror as well as convex lens.
 - Convex mirror as well as concave lens. b)
 - Two plane mirrors placed at 90° to each other. c)
 - Concave mirror as well as concave lens.
- Consider the given ray diagrams and select the correct relationships from the following:



- $n_1 > n_2 ; n_3 > n_4$
- b) $n_1 < n_2 ; n_3 = n_4$
- c) $n_1 > n_2 ; n_3 = n_4$
- $n_1 > n_2 ; n_3 < n_4$

9. The sky appears dark to the passengers flying at very high altitudes mainly because: [1] Scattering of light is not enough at such heights. b) There is no atmosphere at great heights. The size of molecules is smaller than the wavelength of visible light. c) The light gets scattered toward the earth. Rays from sun converge at a point 15 cm in front of a concave mirror, where should 10. [1] an object be placed so that the size of its image is equal to the size of the object? 15 cm in front of the mirror b) 30 cm in front of the mirror between 15 cm and 30 cm in front of the mirror. c) more than 30 cm in front of the mirror. d) CASE STUDY BASED QUESTIONS [Q. 11 TO Q. 13]. 11. Read the following and answer the questions (i) to (iii). Breathing in humans involves three steps. Inspiration, gaseous exchange and expiration. When we breathe in, ribs move up and flatten the diaphragm due to which the chest cavity increases. As a result air moves into the lungs. During gaseous exchange, haemoglobin binds with the oxygen and carries it along with the blood in the body. Carbon dioxide is brought to lungs by blood. During expiration, ribs move down and the diaphragm becomes dome shaped decreasing the chest cavity thus pushing the air out of lungs. What is the correct sequence of air passage during inhalation? [1] Nostrils _____ Larynx _____ Pharynx _____ Trachea _____ Lungs Nassal Passage _____ Trachea _____ Pharynx _____ Larynx ____ Alveoli b) Larynx ____ Nostrils ____ Pharynx ____ Lungs c) Nostrils _____ Pharynx _____ Larynx _____ Trachea _____ Alveoli d) The part where exchange of gases occurs during respiration is: [1]lungs and larynx Alveoli and throat b) Alveoli and capillaries c) Throat and lungs In which organism, the cell membrane acts as the respiratory surface: [1]. b) Amoeba: Lizards al Earthworms Read the following and answer the questions from (i) to (iii): 12. Lens is a piece of transparent glass bound by two spherical surfaces. They are of two types convex lens and concave lens. The lens formula is given by $\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$. The linear magnification produced by lens is equal to the ratio of image to the object. If magnification is positive the image is virtual and erect and if magnification is negative, the image will be real and inverted. The following figures show the path of light rays through three lenses marked L_1 , L_2 and L_3 and their focal points F_1 , F_2 and F_3 respectively. [1]out of L₁, L₂ and L₃ concave lens/lenses is /are: b) Only L₂
d) Both L₁ and L₃ Only L, Only L₃ If an object is placed at a distance of 12 cm from the convex lens of focal length ii) 8 cm, the image distance will be: [1] 24 cm (c) 12 cm

	iii)	n of th	e image	[1]								
		will be a)	at 2F				b)	at F				
		c)	beyond 2F				d)	None of	f these			
13.	Read t	he foll	owing and a	nswer tl	he questi	ons (i)	to (iv):				
	The reactivity of a metal with water also depend on its position in the activity series. A metal placed higher up in the reactivity series is more reactive than a metal placed											
	A met	al plac	ed higher up	in the r	reactivity	series	s is mo	ore reacti	ive tha	n a me	etal placed	
	at low	er posi	ition. They h	ave diffe	erent con	cept t	o reac	t with wa	ater:			ra1
	i)	Which	h of the follo	wing me	etal react	s with	cold	water?				[1]
		a)	Na									
		b)	K									
		c)	Both (a) and									
		d)	None of the			-11.						[1]
	ii)		which is sto				-1	Na		d)	Cu	[-]
		a)	Fe that reacts v	b)	Mg		c)			,	Cu	[1]
	iii)			vitn stea	im but no	b)	Mg	cold of	not we			
		a)	Fe Na			d)	-	these				
	:)	c)	h of the follo	wing m								[1]
	iv)	a)	Fe Fe	b)	Ag	Pince	c)	Zn		d)	Αℓ	
		a)	10	-	0							
				SEC	TION-B	[10 N	Marks]				
	Fill in	the b	lanks(Q. 14	to Q. 23)								
14												[1]
14.	3re 4	41120	\longrightarrow + the mixture of	6	Libria agia	d and	conc	hydrochl	loric ad	rid in	the ratio	
15.			the mixture of	of conc. I	utric acie	and	coric.	ity di ocia	loric a.			[1]
-1	of 1:3	3.	which one	ompone	nt is me	rcurv	is calle	ed				[1]
16.	Place	The alloy in which one component is mercury is called Blood sugar level rises due to deficiency of hormone.										[1]
17. 18.	D1000	hormone is responsible for the changes noticed in females at puberty.										
19.	The movement of shoot towards sunlight is due to											[1]
20.	Junci	Junction between two neuron is called										
21.	7	mage formed by a plane mirror is inverted. When a white ray of light strike on the prism then colour of light deviates least										
22.	When	n'a wh	ite ray of ligh	at strike	on the p	rism t	hen	, cold	our of	light d	leviates lea	st
	and	CC	olour of light	deviate	s maxim	um.						[1]
23.	When	n a ray	of light mov	es from	denser n	nediu	m to,	med	dium, t	hen ra	ay of light	[1]
	When a ray of light moves from denser medium to medium, then ray of light go away from the											
				SEC	CTION-C	2 [10]	Marks	5]				
	Shor	t type	questions.			11 D		tiont IAT	hich lo	ne has	heen	
24.	A do	ctor ha	s prescribed	a lens o	f power	+1 D t	hich k	ind of ev	e defe	ct?W	hat is focal	
	presc	ribed a	and the patie	ent is sui	rering ir	om wi	HICH K	nia or ey	e dere		riat is rocar	[2]
			e lens in cen	umeters								[2] [2]
25.		reasor	wall of vent	icles are	thicker	than t	he wa	ll of auric	cles or	atria.		
	a)	This	necessary to	separate	oxygen	ated a	nd de	oxygena	ted blo	od in	mammals	
	b)		birds.	ocp								
26.		Ioni	compound	s have h	igh melti	ing po	int. W	hy.				[2]
20.	a. b)	NIO	no the metal	s which	are found	d in na	ature 1	n free sta	ate.			For
27.	a) .	TATE	tic the name	e of cher	mical ma	terial 1	used 1	n fire ext	inguis	her?		[2]
		777	1 Jury LI	Claser	ot chang	re the	colour	of dry li	itmus i	paper		1:-
28.	How	is the	concentration	on of hy	dronium	ion (F	130°) a	affected v	wnen s	olutio	n or an acic	[2]
	dilut	ted wit	th water .	1								[2]
		2 2 3 4 4 5	distilled wat	on # at b	anduct of	OR ectrici	ty wh	ereas rai	nwater	does	?	
	Why	does	distilled wat	er norce	muut ei	cetrici	-y wit	Creab run		-		
	1018 19719	AND A TUBE			The State of the later of the l			300				

SECTION-D [10 Marks]

29. (Long answer type questions)
An object 5 cm in length is held 25 cm away from a converging lens of focal length 10 cm. Find the position, size and nature of the image formed. Also draw the ray diagram.

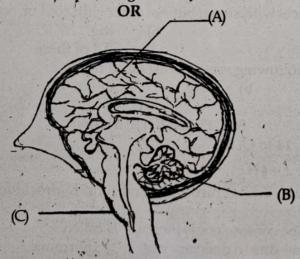
[5]

[5]

OR

- a) i) What is myopia?
 - ii) How it is caused and corrected?.
 - iii) Draw a ray diagram to show the correction.
- b) A hypermetropic person has a near point of 1 m. calculate focal length of the lens required to correct the problem.
- 30. a) Write the events which occur during the process of photosynthesis.

b) What kind of nutrition is found in Amoeba? Show the process of nutrition in Amoeba with the help of diagram only.



- a) In the given above diagram of human brain, identify the parts A, B and C. Give their functions also.
- b) Give the functions of the following plant hormone:
 - i) Auxin
 - ii) Cytokinin
